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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,974	02/01/2005	Robert Ashe	377.8168USU	2336

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OHLANDT, GREELEY, RUGGIERO & PERLE, LLP
ONE LANDMARK SQUARE, 10TH FLOOR
STAMFORD, CT 06901

EXAMINER

FLANIGAN, ALLEN J

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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07/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,974	Applicant(s) ASHE ET AL.	
	Examiner Allen J. Flanigan	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6,9,14 and 59-66 is/are pending in the application.
- 4a) Of the above claim(s) 59,60 and 63-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,9,14,61 and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/2005 and 6/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

Claims 59, 60, and 63-66 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/2/2008.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 6, 9, 14, and 62 are rejected under 35 U.S.C. 102(b) as being anticipated by Samesreuther et al.

Samesreuther et al. show a heat exchanger wall design for containers with plural tubes for heat exchange fluid welded to one side of the container wall. The recitations in claims 1, 2, 5, 6, 9, and 62 regarding the velocity of the heat transfer fluid flowing through the claimed heat exchanger in use, the temperature change, the inventory of fluid to be heated or cooled, the residence time, etc. all concern the intended method of using the claimed product and cannot structurally distinguish over the prior art. These parameters will depend entirely on factors such as the temperature difference of fluids exchanging heat, the pressure differential applied between the inlets and outlets, and so on; at best such recitations require the prior art device be capable of being used in such flow regimes and with such parameters. Clearly,

the exchanger wall of Samesreuther et al. could be used with virtually any fluid or liquid or gas flowing at virtually any velocity at virtually any initial temperature differential. See MPEP 2114.

Claims 1, 14, and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Baumann.

Note that Baumann clearly teaches the use of plural independently supplied tapered (variable cross sectional area) conduits forming a duct through which gas or fluid may pass to exchange heat with the fluid within the pipes 6. Note also Fig. 3, showing that the tubes may be bonded to a ceramic layer 11 that is interposed between the duct interior and the pipe walls and serves as a containment barrier.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samesreuther et al.

Although Samesreuther et al. do not give specific values for the tube diameter of tubes b, they indicate that the tubes may be of "various forms besides rectilinear . . . and of any desired diameter". One skilled in the art would readily comprehend that the tube diameter would determine the flow

capacity and pressure drop produced for the fluid flowing within the tubes, and it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to select an appropriate diameter for a given application of the disclosed heat exchange wall.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining references of record show various heat exchanger wall designs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (571) 272-4910. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Allen J. Flanigan/
Primary Examiner, Art Unit 3744